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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/601,848  | 06/24/2003  | Chang-II Gu          | 1568.1063           | 8089             |
| 21171   | 7590        | 12/29/2004           | EXAMINER            |                  |
| STAAS & HALSEY LLP<br>SUITE 700<br>1201 NEW YORK AVENUE, N.W.<br>WASHINGTON, DC 20005 |             |                      |                     | MARTIN, ANGELA J |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
|   |             | 1745                 |                     |                  |

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| <b>Office Action Summary</b> | <b>Application N.</b> | <b>Applicant(s)</b> |
|------------------------------|-----------------------|---------------------|
|                              | 10/601,848            | GU, CHANG-IL        |
| Examiner                     | Art Unit              |                     |
| Angela J. Martin             | 1745                  |                     |

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 24 June 2003.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-13 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 6/24/03.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_ .  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Objections***

1. Claims 5 and 13 are objected to because of the following informalities: The Examiner believes that the Applicant meant to write the temperature in degrees Celsius. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-4, 6-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al., U.S. Pat. No. 6,653,018 B2.

Rejection of claims 1-4, 6-12 drawn to a pouch type secondary battery.

Takahashi et al., teach a pouch type (envelope) secondary battery (col. 1, lines 5-10) comprising an electrode assembly having positive and negative electrode plates with a separator inbetween (Fig. 8), and terminals extending from the plates (Fig. 1B); a pouch casing having a space in which the electrode assembly is housed, wherein the space has a seal portion at the periphery and at least one of the terminals is exposed to

the seal portion; and at least one opening member disposed at the seal portion and made of a resin material having a lower melting point than the seal portion of the pouch casing (col. 19, lines 58-67 and col. 20, lines 1-2). It also teaches the opening member has a flattened first end, the flattened first end facing the space of the pouch casing (Fig. 8). It teaches the first end is connected to an internal end of the seal portion facing the space of the seal portion at which the opening member is disposed (Fig. 1B; Fig. 8). It also teaches the opening member is polygon shaped (Fig. 1B). Additionally, it teaches the opening is circular or elliptical (col. 6, lines 28-37). It also teaches the thickness of the opening member in a direction perpendicular to the seal portion is less than half of the width of the seal portion at which the opening member is disposed (col. 8, lines 14-40). It teaches the opening is arranged under half of the width of the seal portion at which the opening is disposed (Fig. 1B; col. 6, lines 38-49). It teaches the electrodes are spaced a predetermined distance apart from each other to be exposed outside the pouch casing via the seal portion, and the opening member is interposed between the electrode terminals of the seal portion (Fig. 1B). It teaches the pouch casing has an adhesion layer made of resin on an internal face of the seal portion (col. 6, lines 16-27) and the opening member is made of resin having a lower melting point than a melting point of the adhesion layer (col. 8, lines 41-67). In addition, it teaches the opening member is made of a polyethylene resin material (col. 3, lines 40-54). It teaches at least one opening member of the pouch seal having a triangle shape (col. 6, lines 28-37) and comprising a resin having a lower melting point than a melting point of the pouch seal portion (col. 10, lines 22-26; col. 15, lines 54-64).

Thus, the claims are anticipated.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al., U.S. Pat. No. 6,653,018 B2.

Rejection of claims 5 and 13 drawn to a pouch type secondary battery.

Takahashi et al., teach a pouch type secondary battery as described above. It also teaches the opening member is triangular (col. 6, lines 16-27).

Takahashi et al., do not teach “one side of a triangle faces an interior side of the seal portion at which the opening member is disposed, and an angle opposite the side is in a range of 30 to 80 degrees.”

Thus, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the reference teaches that the “shape of the strip is not critical.” Therefore, depending on the shape of the pouch (envelope) and the choice of the artisan, the opening member can be triangular with the above described angles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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